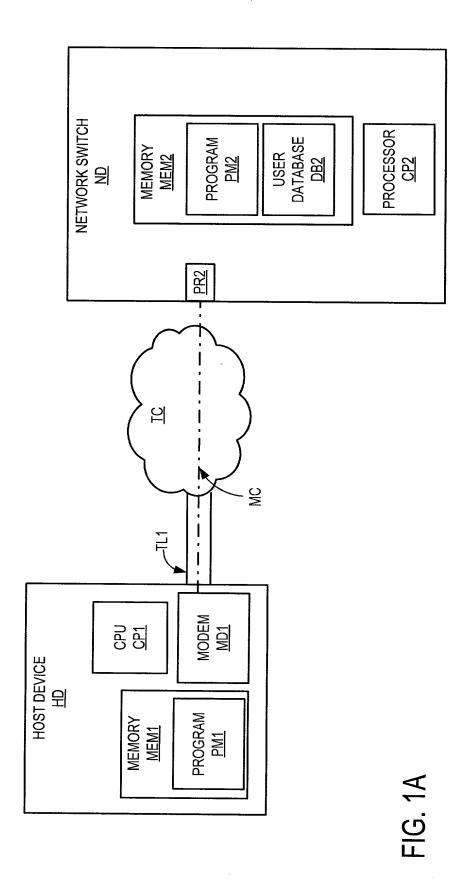
Inventors: Alex Urquizo and Vincent T. Grove
Title: DEVICES, SOFTWARES AND METHODS FOR SELECTIVELY LIMITING THE TOTAL
MODEM-ON-HOLD TIMEOUT TIME OF A SINGLE LOG-IN SESSION
Our Do. No. 2705-181
Page 1 of 5

Marger Johnson & McCollom, P.C. 1030 SW Morrison Street Portland, OR 97205 503-222-3613



USER NAME

USER NAME

LOG-IN SESSION

TIMEOUT TIME LIMIT (SEC)

USER1

USER2

USER3

60

...

FIG. 1B

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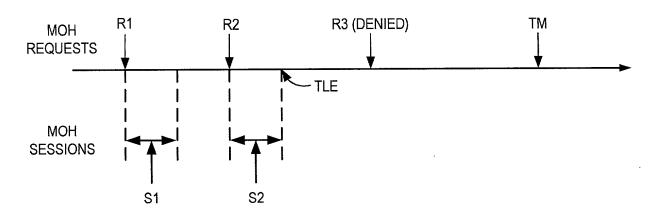


FIG. 1C

Inventors: Alex Urquizo and Vincent T. Grove

Page 3 of 5 <u> 200</u> ESTABLISH MODEM CONNECTION OVER LINE 210 SET TIMER TO ZERO 220 RETRIEVE USER INFORMATION <u>225</u> LOOK UP USER PROFILE DETERMINE SESSION TIMEOUT TIME LIMIT <u>230</u> **EXCHANGE DATA THROUGH MODEM CONNECTION** <u>240</u> RECEIVED MOH REQUEST? 245 YES NO TIMER ?< SESSION TIMEOUT TIME LIMIT <u>250</u> YES NO **DENY MOH REQUEST** 260 TRASMIT WARNING MESSAGE THAT 265 SUBSEQUENT MOH REQUESTS WILL ALSO BE DENIED PLACE MODEM CONNECTION ON HOLD 270 275 START TIMER RECEIVE REQUEST TO CANCEL HOLD 280 RESTORE MODEM CONNECTION 285 290 STOP TIMER

FIG. 2

<u>300</u>

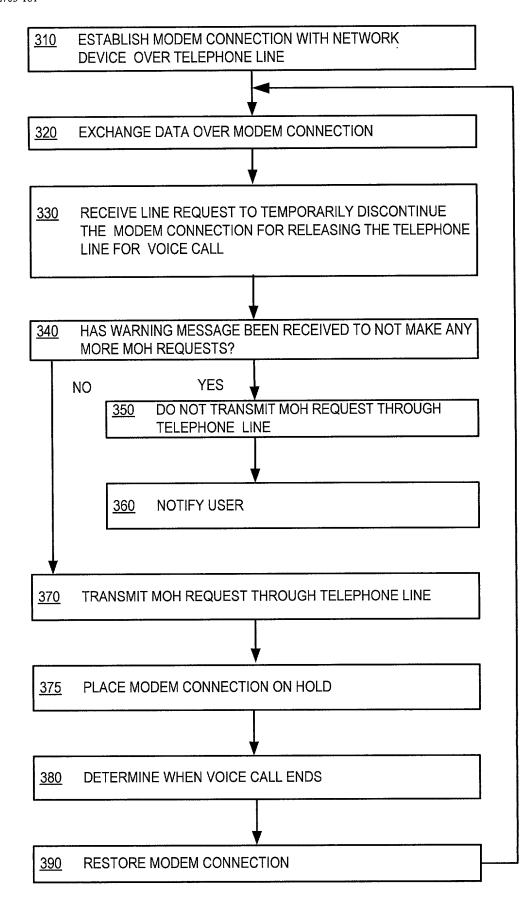


FIG. 3

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MH bits LSB:MSB			
0:3	Fill bits: 1111		
4:11	Frame sync: 01110010, where the left-most bit is first in time		
12:15	Signal indication bits:		
	0011	Mhreq	Request remote modem to go on-hold
	0101	Mhack	Indicate agreement to go on hold and timeout
	0111	Mhnack	Deny on-hold, request cleardown or fast reconnect
	1001	MHclrd	Request cleardown
	1011	Mhcda	Acknowledge cleardown
	1101	MHfrr	Request fast reconnect
16:19	Information bits:		
	For signals Mhreq, Mhnack, MHcda and MHfrr repeat signal indication bits		
	For Mhack:		
	16:19 T1 – T		Fimeout period for on -hold
	For MHclrd:		
	16:19 010		Cleardown due to incoming call
	0110		Cleardown due to outgoing call
	1010 Cleardown due to other reason		
	For Mhnack:		
			1 Modem on Hold denied. Subsequent requests will be
			ied until current modem session terminates.
20-25	0111 Modem on Hold denied. Try again later.		
20:35	CRC		
36:39	Fill bits: 1111		

NOTE 1 - Bit combinations not defined in bits 12 - 15 are reserved for the ITU. MH sequences with undefined bit combinations should be ignored.

NOTE 2 - Bit combinations not defined in bits 16 - 19 for MHclrd <u>and Mhnack</u> are reserved for the ITU and should not be interpreted by the receiving modem.